AMENDMENTS TO THE CLAIMS

This listing will replace all prior versions, and listings, of claims in the application:

1. (Previously presented) A method for carrying out highly exothermic oxidative reactions in pseudo-isothermal conditions, between reactants fed in continuous flow to a predetermined catalytic bed, the method comprising:

feeding at least a part of said continuous flow of reactants within a catalytic mass of said catalytic bed at different points of said catalytic mass corresponding to different successive stages of the reaction which takes place in said catalytic bed, at respective different predetermined temperatures and flow-rates.

2. (Previously presented) The method according to claim 1, further comprising:

positioning a plurality of distribution-suppliers in said catalytic bed, at different points thereof strictly corresponding to different predetermined stages of said oxidative reaction,

dividing said continuous flow of reactants into a first part or main flow and a second part or control flow with a predetermined temperature and flow-rate,

preheating said first part or main flow through heat exchange with said catalytic bed,

feeding said first part or main flow through a plurality of heat exchangers immersed and supported in said catalytic bed,

recovering said main flow of preheated reactants and feeding said main flow continuously to said catalytic bed, and

feeding said second part or control flow to said plurality of distribution-suppliers to inject respective fresh flows of reactants at a predetermined temperature and flow-rate into the catalytic bed.

3. (Currently amended) ~~An apparatus~~ A reactor for carrying out a highly exothermic oxidative reaction in pseudo-isothermal conditions ~~according to the method of claim 1~~, comprising:

a shell in which a reaction zone is defined;

a catalytic bed at least partially occupying the reaction zone;

a plurality of heat exchangers immersed in the catalytic bed; and, ~~wherein with each of said exchangers is associated~~

at least one distribution-supplier associated with each of said heat exchangers, said distribution-supplier suitable for being fed continuously by a flow of reactants at a predetermined temperature and flow-rate,

wherein said heat exchangers are plate-shaped and substantially rectangular and define therein a first chamber, intended to be crossed by a respective flow of reactants to be preheated, and a second chamber, separated fluid-tight from said first chamber and in fluid communication with said at least one distribution-supplier, and

wherein said at least one distribution-supplier is supported by a respective heat exchanger and comprises a carter fixed to a wall of said respective heat exchanger, with which it substantially defines a duct in fluid communication, on one side, with said second chamber of the exchanger and, on the other side, with the outside of the exchanger through a plurality of holes formed in said carter.

4-7. (Cancelled)